

ABSTRACT OF THE DISCLOSURE

The present invention is directed to an electroconductive element within an electrochemical cell that improves water management. The electroconductive element comprises an impermeable electrically conductive element and a porous liquid distribution media disposed along a major surface of the conductive element. Preferably, the liquid distribution media is in direct contact and fluid communication with a fluid distribution layer disposed between the membrane electrode assembly (MEA) and the liquid distribution media, so that liquids are drawn from the MEA through the fluid distribution layer to and through the liquid distribution media. The liquid distribution media transports liquids away from the MEA in the fuel cell. Methods of fabricating and operating fuel cells and electroconductive elements according to the present invention are also contemplated.